



One Stop Shopping Initiative (OSSI) for NASA Internship, Fellowship, and Scholarship Opportunities



AN INNOVATIVE SOLUTION
TO SUPPORT THE
STEM WORKFORCE
OF TOMORROW



WELCOME

NASA Education Stakeholders' Summit

SEPTEMBER 13 - 15, 2010
Westfields Marriott Washington Dulles

Opening Plenary Session and Reception

SEPTEMBER 13, 2010

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STEM WORKFORCE
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OSSI

6:00 PM-8:30 PM

OPENING PLENARY SESSION AND RECEPTION

James L. Stofan, Acting Associate Administrator
for Education, NASA

KEYNOTE REMARKS:

Charles F. Bolden, Jr., NASA Administrator

Cora B. Marrett, Ph.D., Director (Acting),
National Science Foundation

Michael Lach, Special Assistant for STEM Education,
U. S. Department of Education

STAKEHOLDER GREETINGS:

Marion C. Blakey, President and CEO,
Aerospace Industries Association

William Kelly, Ph.D., P.E., Manager, Public Affairs,
American Society for Engineering Education

Leland Melvin, Education Design Team Co-Chair
and NASA Astronaut

NASA STUDENT AMBASSADORS PANEL

Facilitator: **Ashanti Johnson, Ph.D.**, Executive Director,
Institute for Broadening Participation

Quenton Bonds, University of South Florida

Kareen Borders, University of Washington

Katelyn Doran, University of North Carolina at Charlotte

Marie Kingbird-Lowry, Leech Lake Tribal College

Heriberto Reynoso, University of Texas at Brownsville

Geoffrey Wawrzyniak, Purdue University

EXHIBIT TOURS

AGENDA

Charles F. Bolden, Jr.

Administrator
NASA



Nominated by President Obama and confirmed by the U.S. Senate, retired Marine Corps Maj. Gen. Charles Frank Bolden, Jr., began his duties as the 12th administrator of NASA on July 17, 2009. As administrator, he leads the NASA team and manages its resources to advance the agency's missions and goals.

Bolden's confirmation marks the beginning of his second stint with the nation's space agency. His 34-year career with the Marine Corps included 14 years as a member of NASA's Astronaut Office. After joining the office in 1980, he traveled to orbit four times aboard the space shuttle between 1986 and 1994, commanding two of the missions. His flights included deployment of the Hubble Space Telescope and the first joint U.S.-Russian shuttle mission, which featured a cosmonaut as a member of his crew. Prior to Bolden's nomination for the NASA administrator's job, he was the CEO of JACKandPANTHER LLC, a small business enterprise providing leadership, military and aerospace consulting, and motivational speaking.

Bolden's NASA astronaut career, which began in 1980, included technical assignments as the Astronaut Office safety officer; technical assistant to the director of Flight Crew Operations; special assistant to the director of the Johnson Space Center; chief of the safety division at Johnson; lead astronaut for vehicle test and checkout at the Kennedy Space Center; and assistant deputy administrator at NASA Headquarters. After his final space shuttle flight in 1994, he left the agency to return to active duty with the operating forces in the Marine Corps as the deputy commandant of midshipmen at the U.S. Naval Academy.

Bolden was assigned as the deputy commanding general of the 1st Marine Expeditionary Force in the Pacific in 1997. During the first half of 1998, he served as commanding general of the 1st Marine Expeditionary Force Forward in support of Operation Desert Thunder in Kuwait. Bolden was promoted to his final rank of major general in July 1998 and named deputy commander of U.S. Forces in Japan. He later served as the commanding general of the 3rd Marine Aircraft Wing at Marine Corps Air Station Miramar in San Diego, Calif., from 2000 until 2002, before retiring from the Marine Corps in 2003. Bolden's many military decorations include the Defense Superior Service Medal and the Distinguished Flying Cross. He was inducted into the U.S. Astronaut Hall of Fame in May 2006.

Bolden earned a Bachelor of Science degree in electrical science. He also holds a master's in systems management from the University of Southern California.

Cora Marrett, Ph.D.

Acting Director

National Science Foundation



Dr. Cora Marrett was appointed acting director of the National Science Foundation (NSF), effective June 1, 2010. She had been the acting deputy director since Jan. 18, 2009.

Prior to that, Dr. Marrett was the assistant director for education and human resources, a position she held from February 2007 until becoming acting deputy director. She led NSF's mission to achieve excellence in U.S. science, technology, engineering and mathematics (STEM) education at all levels and in both formal and informal settings. Earlier, from 1992-1996, Dr. Marrett was NSF's assistant director for social, behavioral and economic sciences.

Prior to returning to NSF in 2007, Dr. Marrett served as the University of Wisconsin's senior vice president for academic affairs for six years. Before that, she served as senior vice chancellor for academic affairs and provost at the University of Massachusetts-Amherst for four years.

Dr. Marrett holds a Bachelor of Arts degree from Virginia Union University and a Master of Arts and a doctorate from UW-Madison, all in sociology. She received an honorary doctorate from Wake Forest University in 1996 and was elected a fellow of the American Academy of Arts and Sciences in 1998 and the American Association for the Advancement of Science in 1996.

Michael Lach*Special Assistant, STEM Education*

U.S. Department of Education



Michael C. Lach is currently special assistant, STEM Education, U.S. Department of Education. Lach previously served as officer of teaching and learning, overseeing curriculum and instruction in the 600+ schools comprising the Chicago Public Schools, the nation's third largest school district.

Lach began teaching high school biology and general science in 1990 at Alcee Fortier Senior High School in New Orleans as a charter member of Teach for America, the national teacher corps. After three years in Louisiana, he joined the national office of Teach for America as director of program design, developing a portfolio-based alternative-certification system that was adopted by several states.

Returning to the science classroom in 1994 in New York City Public Schools, and in 1995 at Lake View High School in Chicago, he was named one of Radio Shack's Top 100 Technology Teachers, earned national board certification, and was named Illinois Physics Teacher of the Year.

Lach has served as an Albert Einstein Distinguished Educator Fellow, advising Congressman Vernon Ehlers (MI) on science, technology, and education issues. He was lead curriculum developer for the "Investigations in Environmental Science" curriculum developed at the Center for Learning Technologies in Urban Schools at Northwestern University, published by It's About Time, Inc. As an administrator, he led the Chicago Public Schools' efforts in science and mathematics instruction in a variety of roles between 2003 and 2007. He has written extensively about science teaching and learning for publications such as *The Science Teacher*, *The American Biology Teacher*, and *Scientific American*.

He earned a bachelor's degree in physics from Carleton College and master's degrees from Columbia University and Northeastern Illinois University.

James Stofan

Acting Associate Administrator for Education
NASA



As the Acting Associate Administrator for Education, James Stofan shares responsibility for providing executive leadership, functional management and coordination of NASA's education programs and activities. The agency's goal is to meet national education needs and ensure a sufficient talent pool to preserve U.S. leadership in space exploration, aeronautical technology and science.

From September 2003 to March 2006, Stofan applied his technical and education expertise by serving as NASA's informal education division director. Prior to joining NASA, Stofan served as the senior vice president for education programs at the National Wildlife Federation (NWF). In this role, Stofan oversaw all of NWF's educational endeavors, including the award-winning Ranger Rick, Your Big Backyard and Wild Animal Baby magazines; community education efforts like the Backyard Wildlife Habitat, Earth Tomorrow and Habitat Stewards programs; and classroom projects such as Schoolyard Habitats and Campus Ecology.

Subsequent to joining NWF, Stofan was a faculty member and director of distance education at Johns Hopkins School of Hygiene and Public Health. There he pioneered the use of the World Wide Web as an educational tool. Johns Hopkins is the first university to offer the master of public health degree to a global audience via the Internet. Stofan is a recognized speaker on the educational uses and opportunities presented by the Internet and other technologies.

Stofan has served on the National Partners Council of the Points of Light Foundation, Board of Directors of National Wildlife Productions and on the Executive Committee of the Board of Directors of eNature.com. He is also the past chair of the Environmental Education Coalition. He is a member of the honor societies Kappa Delta Pi and Phi Kappa Phi. He is an active member of the North American Association for Environmental Education, the Association for Educational Communications and Technology, and the International Council for Educational Media.

A native of San Francisco, Stofan graduated in 1989 from Johns Hopkins University with a degree in behavioral biology and sociology, and earned a master's degree in instructional technology from the University of Central Florida.

Marion C. Blakey

President and Chief Executive Officer
Aerospace Industries Association



Marion C. Blakey is president and chief executive officer of the Aerospace Industries Association (AIA). AIA represents the nation's leading manufacturers and suppliers of civil, military, and business aircraft, helicopters, unmanned aerial systems, space systems, aircraft engines, missiles, materiel and related components, equipment services and information technology.

Blakey became the eighth full-time chief executive of the association in 2007. Before that, she served a five-year term as administrator of the Federal Aviation Administration (FAA). Prior to being named FAA Administrator, Blakey served as chairman of the National Transportation Safety Board (NTSB). During her tenure as chairman, she led a number of accident investigations, including the 2001 crash of American Airlines flight 587, dealing with both the highly technical aspects of the investigation as well as the highly charged public interest in the accident.

Including her service at the FAA and NTSB, Blakey has held six presidential appointments, four of which required Senate confirmation. From 1992 to 1993, Blakey served as administrator of the Transportation Department's National Highway Traffic Safety Administration (NHTSA), which regulates the automobile industry. As the nation's leading highway safety official, she was charged with reducing deaths, injuries, and economic losses resulting from motor vehicle crashes. Prior to her service at NHTSA, she held key positions at the Department of Commerce, the Department of Education, the National Endowment for the Humanities, the White House and the Department of Transportation.

Blakey received her bachelor's degree with honors in international studies from Mary Washington College of the University of Virginia. She also attended Johns Hopkins University School of Advanced International Studies for graduate work in Middle East Affairs. She is a member of Phi Beta Kappa and has received a number of honorary degrees and awards.

William E. Kelly, Ph.D., P.E.

Manager Public Affairs

American Society for Engineering Education



William E. Kelly, Ph.D., P.E., is the manager of public affairs at the American Society for Engineering Education (ASEE). At ASEE, his responsibilities include the Engineering Deans Council, ASEE's K-12 activities, and ASEE's ABET activities.

Prior to joining ASEE in September of 2007, he was a professor of civil engineering at the Catholic University of America in Washington, D.C. where he also served as dean of the School of Engineering from 1996-2001. While dean, he served on the JETS Board and the Board of Directors for the Washington ACE mentor program. Dr. Kelly was on the ABET Engineering Accreditation Commission (EAC) from 1993-2003 and was chair in 2001-2002.

Dr. Kelly received his Ph.D. in civil engineering from the University of Notre Dame and received an Engineering Honor Award from his alma mater in 1999.

Leland D. Melvin

*Education Design Team Co-Chair,
NASA Astronaut
NASA*



Selected by NASA JSC in June 1998, Leland Melvin reported for training in August 1998. Since joining the space program, Melvin has served the Astronaut Office Space Station Operations Branch, the Education Department at NASA Headquarters and the Robotics Branch of the Astronaut Office. As co-manager of NASA's Educator Astronaut Program, Melvin traveled across the country, engaging thousands of students and teachers in the excitement of space exploration and inspiring them to pursue careers in science, technology, engineering and mathematics. A veteran of two space flights, STS-122 in 2008 and STS-129 in 2009, Melvin has logged more than 565 hours in space.

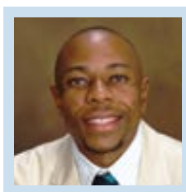
Melvin earned his Bachelor of Science degree in chemistry from the University of Richmond and a Master of Science degree in materials science engineering from the University of Virginia. His honors and awards include: Invention Disclosure Award for Lead Insensitive Fiber Optic Phase Locked Loop Sensor; NASA Outstanding Performance Awards (8); NASA Superior Accomplishment Award (2); Key to the City of Lynchburg, Virginia; NCAA Division I Academic All-American; and University of Richmond Athletic Hall of Fame Inductee.

STUDENT AMBASSADOR BIOGRAPHIES



Quenton Bonds

University of South Florida



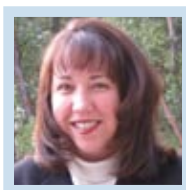
Quenton Bonds received his Bachelor of Science degree in mathematics from Alabama State University in Montgomery, Ala. in 2001 and a Master of Science degree in electrical engineering in 2006 from The University of South Florida (USF) in Tampa, Fla. Bonds is currently a Ph.D. candidate at USF.

Upon graduating, Bonds will join the Microwave Instruments Branch of the National Aeronautics and Space Administration (NASA) at the Goddard Space Flight Center (GSFC). As a Ph.D. student, Bonds has interned at various NASA centers: NASA AMES, NASA GSFC and NASA Glenn.

His achievements include: the 2010 IEEE WAMICONN Best Student Poster Award, 2009 NASA Graduate Student Researchers Fellowship, 2009 FEF Carl Crawford Award, 2009 IEEE MTTs Fellowship for Medical Applications, 2008 USF College of Engineering Best Poster Award, 2005 Emerge Best Oral Presentation Award in the Engineering Category, 2006 NASA Harriet Jenkins Predoctoral Fellowship, 2005 McKnight Doctoral Fellowship and the 2004 NSF Bridge to Doctorate Fellowship.

Kareen Borders

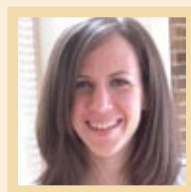
University of Washington



Kareen Borders is a doctoral student at the University of Washington pursuing a doctorate in educational leadership with a focus on science, technology, engineering and math (STEM) education reform. She teaches science and aerospace in the Peninsula School District. In addition to being a Spitzer Space Telescope Teacher and WISE Telescope Teacher Ambassador, Borders is the team lead for the NASA Explorer School Team at Key Peninsula Middle School. For the past six years, her aerospace students have competed in and won student science investigations. She has developed and led workshops for the Peninsula School District, American Institute of Aeronautics and Astronautics and Arecibo Observatory. Borders has published abstracts with the American Astronomical Society (AAS). She is the lead National Board facilitator for her district, supporting other teachers in their pursuit of National Board Certification.

Katelyn Doran

University of North Carolina, Charlotte



Katelyn Doran is a graduate student in computer science at the University of North Carolina, Charlotte and a recipient of a NASA Graduate Student Researcher's Program Fellowship. Doran has spent the summer at NASA Headquarters and Goddard Space Flight Center working to develop the website associated with the One Stop Shop Initiative (OSSI) and to improve the NASA Student Ambassadors Virtual Community.

Marie Kingbird-Lowry

Leech Lake Tribal College



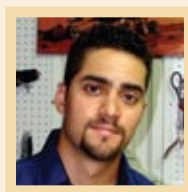
Marie Kingbird-Lowry, a second-year student at Leech Lake Tribal College in Minnesota in liberal studies with a STEM emphasis, was selected by NASA as one of its 105 best and brightest interns and fellows for the NASA Student Ambassador Program 2010. Kingbird-Lowry is the only student from Minnesota to serve as a NASA ambassador. NASA managers and mentors nominated the recipients from the hundreds of interns and fellows engaged in research and education opportunities across the agency.

Kingbird-Lowry completed a 10-week summer internship with NASA in 2009, partnering with the late Leann Dick on a research project, in which she worked with Leech Lake Heritage sites to determine which of three possible routes would best serve the needs for the Leech Lake tribe to preserve its cultural resources.

Kingbird-Lowry was named to Leech Lake Tribal College's dean's list for the fall of 2008 and the president's list for spring of 2009 and is a member of AISES. She is working on an internship with the Leech Lake Tribal College to study tree rings to determine if climate changes the growth of trees.

Heriberto Reynoso

University of Texas at Brownsville



Heriberto Reynoso is a junior majoring in computer science at the University of Texas at Brownsville. He is currently a NASA MUST Scholar and a Google Scholar. In 2008, Reynoso was selected to attend the Karen Marquez Institute for Hispanic Young Professionals, a leadership development program that brings top scholars to Washington, D.C. for a series of professional development workshops and the fund's annual gala.

Geoffrey Wawrzyniak

Purdue University



Geoffrey Wawrzyniak received a Bachelor of Science degree in mechanical engineering from the University of Wisconsin--Madison in May 1999. He then went on to earn his master's in aerospace engineering from The University of Texas at Austin in May 2001. He was employed at the Jet Propulsion Laboratory (JPL) in Pasadena, California in the Navigation and Mission Design Section until 2005, when he departed to pursue his Ph.D. at Purdue University. While at JPL, he was a navigator for Mars Odyssey, MER, Genesis and other deep-space missions. Wawrzyniak's interests include dynamics, guidance, navigation and control, and his Ph.D. research is on the dynamics and control of solar sails in the Earth-Moon system.

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